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— FOR IMMEDIATE RELEASE —

Corps of Engineers tests flood-fighting products in Wilkes-Barre

PHILADELPHIA (November 15, 2005) --- The U.S. Army Corps of Engineers is installing three new flood-fighting products in Wilkes-Barre, Pa., that may one day replace sandbags as the standard flood protection tool.

In 2004, Congress directed the Corps to develop real world testing procedures for promising flood-fighting products. The Engineer Research and Development Center (ERDC), the research laboratories of the Corps, developed a comprehensive laboratory and field testing regime for the three new products and sandbags for a baseline.

"Congress is interested in advancing our flood-fighting technology beyond sandbags, "Joan Pope, ERDC program director for Civil Works, said. "We can send men to the moon and do micro surgery, but we're still throwing sandbags at floods."

The products, Rapid Deployment Flood Wall, Hesco Bastion Concertainers, and Portadam, will be tested jointly by the Corps' Baltimore and Philadelphia Districts on the Susquehanna River within the Wilkes-Barre city limits for their construction and removal requirements as well as for their performance in holding back flood water. The information from this field test will be combined with the results from previous tests and supplied to flood-fighting and emergency operations organizations across the country to assist in the selection of the best technology for their local needs.

Each of the new products can be installed much faster than sandbags and also have other distinct advantages over traditional flood-fighting techniques. Rapid Deployment Flood Wall is a plastic grid unit that expands to form a continuous structure that is filled with soil or sand. Hesco Bastion Concertainers are wire baskets with a membrane liner that are filled with sand and pinned together to form a continuous structure. Portadam is a plastic liner that is supported by a steel frame.

"During a flood, time is often critical. If you've ever built a sandbag structure, you know how time consuming and labor intensive these structures can be to construct," said Fred Pinkard, an ERDC hydraulic engineer working on the research. "These products will help flood fighters respond more efficiently."

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Laboratory tests were conducted in one of ERDC's large wave basins in Vicksburg, Miss., in 2004. These tests simulated real world flood-fighting problems – water pressure and seepage on the structures, waves and overtopping, log or debris impacts, construction requirements, use of unskilled labor, damage and repair, and removal and reusability of the structures.

A preliminary field test was also conducted at the Vicksburg, Miss. harbor on the backwaters of the Mississippi River from May to July 2004. The field test evaluated many of the same parameters as the lab tests, but also included right-of-way requirements for construction, adaptability on varying terrain, and the ability to raise the structures to meet higher water levels.

"Each product had advantages and disadvantages; it really depends on the flood-fighting scenario. But people don't want to experiment during a flood fight. The lab and field experiments provide truth," Pope said.

The local field test in Wilkes-Barre is part of a pilot testing effort to evaluate the products under different conditions and geographic locations. Besides the testing in Wilkes-Barre, field tests will also be conducted in the Omaha and Sacramento Corps Districts. Each of the three test sites will have approximately 1670 feet of each product for evaluation. Following the tests, any remaining or reusable flood-fighting products will be stored and made available to Corps districts in the region for use during actual flood events.

The laboratory, field, and pilot testing will ultimately provide data on the technical soundness, operational functionality, and economic feasibility of these new flood-fighting products under varying conditions. The results will be placed on a publicly accessible web page to provide state, county, municipal and other government and emergency operations agencies knowledge of the available products for flood fighting.

"We are going to report the facts. They will have the true info, which is the biggest value of this research. Everything will have been tested on an even playing field," Pope said. "We will simply report the technical performance without putting a spin on it."

These results and supporting information will help such agencies consider and select new products for temporary flood fighting based on expediency, construction, durability, removal and reusability factors. This will help provide optimum flood protection for people and critical facilities in future floods across the nation.

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